

Dec 1950

CQ - TV

No Seven

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Editor's Note:

Dear QMs,

At this Festive time, I am glad that we have had a most agreeable present from the GPO in the form of the long awaited licences. As yet, no details are available beyond the fact that transmission will be permitted in the 3, 6 and 13 cm bands. These bands are by no means useless, and ranges of many miles have been obtained with no difficulty, and reasonably simple equipment. Our thanks are due to the ESGB, and those M.Ps who kindly pressed our point to the PMG.

The past months have seen several important demonstrations of ham TV, and a lecture to the Television Society, which was very well received by our professional friends. There is no doubt that the possibilities of amateur TV are now well to the fore in many people's minds. Many more members have signed on, and as will be seen from "Other Blockisms", a large increase in construction is on the way. By the end of next year there should be two or three more Iconoscope cameras on the air, and as many more IFCs. We hope that those chaps predominantly interested in the HF side of things will chip in with some useful ideas, and help out the TV types.

Next year should see the development of several new Club ideas to help you; it is hoped to turn out a series of film strips for a start. We may hold a TV Convention to thrash out any odd spots of trouble you may be having, and there will certainly be several more shows in various parts of the country.

With the prospects definitely on the bright side, I should like to wish you all the very best of luck, and that you may have a very Happy Christmas.

Yours sincerely,


M. Barlow, G3CVO.

P.S. Thanks for the letters and reports....NO SLACKING in 1951!

"THIS MONTH'S SHORTS...."

Congratulations to CVO on acquiring a new typewriter, with μ and π signs.

Would you like a new membership list as the old one is out of date now?

We were glad to see PAF?? at the RSGB Exhibition; he had some news of PAF?? which he kindly gave to our viewers.

For Sale: Button base tubes @ 3/- each. Min qty 10, about half are 6C4s, remainder 6AG5, 6AK5, 6J6, 9001, 9002, etc. Selection by, and get from Sgt Wemyss, Sgts mess, D & M School, Bovington Camp, Dorset.

For Sale: Stereo camera, and $3\frac{1}{2} \times 2\frac{1}{2}$ f6.3 plate camera. Also VCR 516 9" magnetic blue trace yellow afterglow: Grant Dixon, 23 Wye St, Ross on Wye.

Anyone giving shows in the London area? Mr. W.E.Hall, of 11, Gransden Ave, E8 has kindly offered to lend dimmers, spots, floods etc, plus a switchboard if required. Many thanks, cm.

Anyone know where we can get the club badge manufactured?

It has been confirmed that it will be necessary to hold a normal transmitting licence before the /TV bit will be issued. Looks like you'll HAVE to do that cw after all, unless you stick to closed circuit working.

Eric Tomkinson, 9 Treasbury Road, Sydenham SE26, has some good photos of our gear at the RSGB exhibition @ 3/- each.

Our next 'do' will be at the Cavendish Laboratory, Cambridge, in February, to the Cambridge Amateur Radio Club and the University Wireless Society.

During University term time, CVO is at 8, Primrose St, Cambridge. He will be on 3775 kc/s Sunday mornings at 11.00 and 1200.

If you would like a 5527, but cannot afford it, write to me. It is very probable someone else in your area feels the same way, and you might be able to split the cost between you.

W.e.f this edition, the subscription goes up to 5/- p.a, and is to join the Club; the magazine now becomes free to members!

Would you object strongly to trade advertisements by trade members @, say, 5/- for 2 lines for 6 months? We are hard up, remember.

Many thanks to Miss Rosemary Gledhill for her great help in the preparation of this edition.

Tony Sale reports that a bit of HF peaking, and the insertion of shunt coils in that video amp given last month sharpens up the response quite a bit. And one of our friends at the TV Society says that you can get good pictures using the IPC principle for scanning, and 3 931As with condensing lenses for pick-up.....



THOSE QSL CARDS..... REMEMBER?


A long time ago we had a discussion on QSL cards for the Club, but as there was no immediate possibility of getting an HF allocation, the matter was left over. With the pending issue of licences, however, the matter is once again brought up for your approval or otherwise.

Since the number of TV QSOs or Reports that any one member is likely to have is very low, then it would seem to be most economical if we have some standard design printed for the Club, so that individual members can add their own calls and addresses over the top.

Also, there is obviously an incredible amount of data that could be accommodated on the card, so that it seems to be preferable to keep the card as simple as possible, relying on a separate sheet for such things as 'rig here', etc. In this case the face of the card could be left fairly free to give the emphasis to the letters "TV", or whatever is decided.

What is required in the way of a report? Should we have a Contrast scale, or does a signal strength report cover it? Can the focus and definition be covered simply, as "Mod" is on a sound transmission? Is "Definition" comparable to "Readability"? Perhaps YOU have some ideas on these points.

(Insert
your
call)



The British Amateur Television Club

Your address

Many thanks for the (rpt,QSO) on TV
on.....19.. atGMT.
73s,

Vision...mc/s..lines

Sound...mc/s

On the left is a suggested design. With proper type it should be possible to include FM/AM and Non-Interlaced.

Alternatively, how about the bottom part only, with an overprinted "TV", printed on adhesive paper to stick onto your own QSLs? This would probably be more restricted as the usual information is not in the same place on many QSLs. Let me have your ideas chaps.

AMATEUR TELEVISION DEMONSTRATION AT RSGB EXHIBITION IN LONDON

The response of the average amateur to a demonstration of live ham TV exceeded our greatest expectations; hundreds of enquiries were dealt with during the three days of our show. Results were definitely GOOD.

G2DUS sent Ken up on the Wednesday afternoon with the sound gear, and followed with the camera unit the next morning. Meanwhile, Tony Gilbey had done some very fb test cards, titles, and one saying: "Normal Service will be resumed as soon as possible"! Pete Parkin took some leave from the RAF, and brought a wonderful banner to hang across the stage; G5ZT came up all the way from Plymouth for the whole three days, and 3CVO had words with his tutor and arranged time off from Cambridge.

Our stand consisted of a raised dais about 10'x 8' in a small alcove; with the very able assistance of MR. Freeman of the RSGB, white backcloths were borrowed from the RSGB stand ("dustabets"), THE banner hung up, photos and publicity material layed out, and tea laid on. Ivan arrived at lunchtime, to the notification of Pete, 5ZT and 3CVO. Nevertheless, the stand was looking a little more like home by 2.30, when the first half-hour performance went on the air.

The camera dolly just fitted onto one section of the dais, but it was not possible to do any tracking or dolly shots; as it was 5ZT disappeared into the flowers at the front of the stand on one occasion, whilst doing a crafty 'art' shot! It was found that the mic boom counterweights had been taken back home again by mistake, and after unsuccessfully trying Messrs. Woden for a u/s transformer, two bricks wrapped in gaily coloured green paper were pressed into service instead. Four No. 2 Photofloods were used, with a 1 kW bulb overhead to light the backcloth. The heat was a little excessive at times, as the photofloods were only about 3' from the artistes (sic); fanning manually with the "Interval" card had to be resorted to on several occasions.

The 15" monitor was 175' away in the middle of the exhibition space, but the loss of quality was not serious. The 9" monitor was on the stand, visible to cameraman and audience. Everything ran perfectly, although the small monitor had a shorted turn on the line coil producing a distorted picture on the Friday.

The shows themselves were restricted to about 30 minutes duration, owing to the congestion occurring in the gangways during transmission periods. Our thanks are due to those fibres who patiently put up with these interruptions at intervals of two hours. Title cards came on the regulation five minutes before transmission followed by G3CVO making some introductory remarks, or being "caught" in the act of shaving himself with O.M. Parkin's electric razor....With the aid of charts, How To Build A Ham TV Transmitter for £15 was explained, and PAQUSA's excellent photos of the Groningen gear were shown. Cartoons of various personalities, drawn by G6UH of BHI, caused great amusement. To show how good we were, we even changed lenses - quite an operation, involving three people and an insulated 'screwdriver! After interviewing various people from the audience, and occasionally turning the camera onto the audience, the transmission closed with a "G2DUS/TV" card.

Among the many interested visitors to the stand were the PAB himself, who was "greatly impressed", and the Director-General of Telecoms. In Afghanistan we were also very glad to meet many members of the BATIC who popped in to chat and get some ideas, and who were usually pressed into doing some of the dirty work!

Many members of the RSGB expressed their interest, and we were able to return the compliment by televising members of the Council on the last evening. This was also the occasion of a very nice gesture on the part of Messrs. Avo, Ltd, who very kindly donated one of their Electronic Test Meters for the use of the Club, for which I am sure we are all extremely grateful. In addition, other exhibitors presented Ivan with complete cabinets for the gear, and an aerial system for use on whichever band he uses. Added to this, we made many new friends, and signed on several new members. G5ZT dragged the RCA man down, and he is hoping to

HF ON THE 3, 6 AND 15 CM AMATEUR BANDS

Here are some notes to set you thinking. We hope to have a complete article in the near future on each band. Grant Dixon sends in this list of useful tubes:

Disc Seal Tubes	V_a	μ	E_a	Max Freq
CV90 6.3v 0.6a	350v	35	6.0	3000 mc/s
CV290 6.3 0.45	350	30	6.0	3800
CV154 6.3 1.0	2000	35	6.0	>3000
CV273 6.3 0.45	350	30	7.0	3700

The CV90 is rated at 10 watts max dissipation, and has internal feedback probes. CV290 needs external feedback. CV154 is like the CV90, but has a larger cathode for pulse work. CV154, $\mu = 80$, $E_a = 7.0$, $I_a = 10$ mA, is used as an amplifier.

10cm Klystrons Cavity diam Reflector V

CV35 tunes 9.7-10.1	48.6mm	-170 to -290	$E_g = 0$, $I_a = 8$ mA.
CV36 10.25-10.85	54.0	-230 to -320	$E_g = 1200$ V.
CV67 8.9-9.5cm	43.0	-300 to -420	Tuning range is abt 2% per plug.

At 2000 V, these are 4% efficient, giving 800 mW o/p. Min $E_a = 800$. FM...80V reflector swing = 4Mc/s deviation. Changing E_a from 800 to 1600 produces a 8 Mc change.

The CV116, 237, 238 and 272 are similar, running 8 watts input and giving 150 mW out. $E_g = 250$ V, $E_{refl} = -150$ V. 25V change on the reflect gives a 30 Mc carrier shift. (Developed for APO use). CV322 covers 2.9-3.4cm. $E_g = 300$ V, 6 watts in, 40mW out, 50 Mc shift. Could be very useful, that. CV234 is a coaxial line job for 8-18cm. $E_g = 250$ V.

Two methods for using CV67s on 15cm sent in by Tony Sale and Grant Dixon: (i) take off rumbatron (keep it for 25cm work w. CV90) and replace with another 2 1/2" in diam. Lower refl. volts a bit.

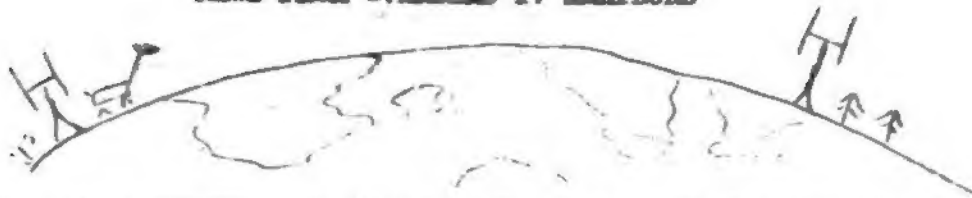
(ii) Solder about 10 18 swg wires across copper seals, and add or remove until in the band....

Tony also recommends the 407A Klystron for 15 cm, and the 723A/B for 3cm. And red spot 1N21s are the things for mixing....1N23s O.K.

Look out for 4J60 and 4J61s. These are small cw magnetrons, rated at 65 watts HF. There is a 6J21 rated at 1kW continuous, too, not to mention the type 34, rated at 10 kW CW and Heanatron 8 60 kW! GL44s make fine local oscs at 3000 mc/s, incidentally, so hang on to them (as if you weren't).

FM or AM of SE Os at these frequencies presents no great trouble, and it is possible to get as little as 1% of the unwanted form. Details will follow later. If you are in a hurry read "VHF Techniques" Chap. 17 and 31. Its all there, and good.

NEWS FROM OVERSEAS TV AMATEURS



From CANADA, Bill Cheek VE3EAB, of 102 Paradise Road North, Hamilton, Ontario, writes in to say that there are two clubs in Hamilton, boasting some 100 members. Most of these are on 2 metres, and some are on 420 mc/s and higher. 40 of them have formed a TV group; as far as Bill knows, this is the only TV group active in Canada, their activities being chiefly concerned with DX reception. The transmission side is "under discussion", but they have the same difficulties with the licences as we had - the Dept. of Transport in this case being slow to encourage them!

On the commercial side, Canada has no TV service at all, although CBC are hoping to build stations at Toronto, Montreal and Ottawa with RCA equipment. Commercial and private sound stations are allowed, of course, but no TV as yet. Bill and the gang are on the fringes of WBBN Buffalo N.Y on Channel 4, and WHAM Rochester N.Y on Channel 4. Both of these stations carry network programmes, and as a result the city engineer of Hamilton is very worried about the numbers of 100 ft antenna masts! That way they don't pay TV licences either, but when they come they are to be \$10.00 against \$2.50 for the sound licence. Bill can be found around 28,420 kc/s and is looking for us. Thanks for the report, om.

From Nadi Airport, FI JI, Graham Goodger VR2BC/ZL2RP sends news of activity in Australia and New Zealand. The Australian government are considering tenders for the erection of a station at Sydney, and hope to have it in operation within two years. This is to operate in the 178-200 mc/s band, with a bandwidth of 7 mc/s for a 625 line 25 picture double interlaced, aspect ratio 4 by 3. The video will be of negative polarity, A.M, and the sound will be on FM. Horizontal polarisation will be used.

In ZL, due to the small population and mountainous country, there is no prospect of TV for some time, although a couple of hams there have camera units in action. Graham is building up a telestill camera for his own use, and hopes to contact some of the other TV types on 440 mc/s. Good luck, om.

Our French representative, BERNARD MALANDAIN F9MH, has now emigrated to the USA, and can be found at 495 West End Avenue, New York City, N.Y. Bernard hopes to get active once he has settled down over there, but will be out of things for a little while. Keep in touch, om, because surprising as it may seem, we have no representative actually in W land!

Hendrik de Waard, PA6ZX, has moved his house. This followed his recent marriage, and has evidently prevented him from keeping up with his fan-mail! However, Lou Foreman, PA6VT (remember him as the cameraman in those photos of the Dutch gear?) tells me that PA6BE's rx is being modified now that a 405 line Xformer and scan coils have been "obtained"....! The PA6s threw a TV-only Hamfest, which was a great success. The Press took a great interest, and useful publicity was obtained, N.B has anyone a good comm. rx they would like to give these boys? You try linling up a camera unit on a VCR97!

Thanks for the reports, chaps. Keep them rolling in.

ESGB EXHIBITION Continued from P.Four.

put in a blanket order for 12 5527s, so that the necessary red tape only has to be done once. Various experts on different branches of Amateur Radio made themselves known, and offered valuable suggestions. We hope to print some articles by these chaps in future editions.

I think we all enjoyed ourselves immensely, in spite of the hard work at times, and we hope that visitors to the Exhibition did too. In conclusion, we should like to express our warm thanks to the ESGB and all the others who helped out.

COMPANY NOTES: FINANCIAL STATEMENT

SUBSCRIPTION TO BE INCREASED TO 5/- PER YEAR.

WOMAN PAINTS IN TRAIN: VISHINSKY TO USE VETO? MACARTHUR CONFERS.

CAMBRIDGE? DEC 7th. From our own correspondent.

Today, amid wild scenes of merry-making, the Hon. Treas. presented his accounts for the year. It read thus:

IN				OUT			
	£	S	D		£	S	D
Subscriptions asstd.	6	12	6	Stencils	2	4	0
Sale of photos, needlework, etc		10	6	Paper	3	12	0
Unused S.A.Es		2	3½	Covers	3	17	6
Donations			5	Mag. post		18	0
	<u>£7</u>	<u>4</u>	<u>8½</u>	Sundry post		14	0
				Staples, ink, tea,			
				"News of the World",			
				loan of pencil, etc	10	0	
					<u>£11</u>	<u>15</u>	<u>6</u>
				Stock in hand	£3	15	0
					<u>£7</u>	<u>19</u>	<u>6</u>
				Deficit	£-	14	9½

The above accounts do not allow for the publication of this issue, so reduce stock to £2, add 5/- for post, stapling etc. Also some of the printing has been done commercially..... estimated deficit £3 14 10½.

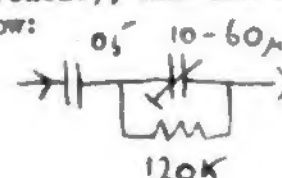
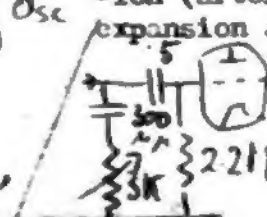
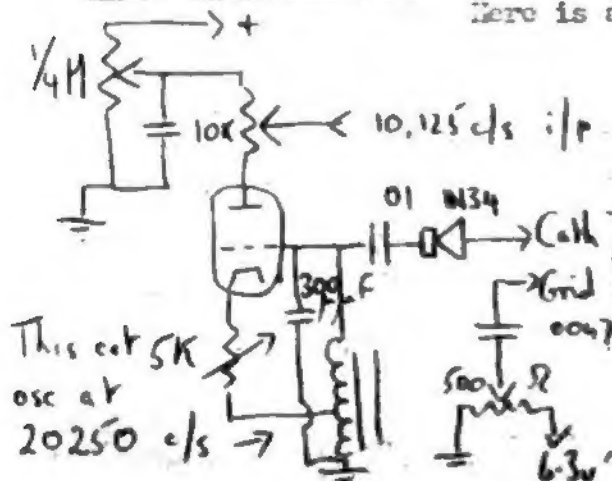
So you see, chaps, it must be 5/- next year, or I shall be broke.

N.B For convenience I am going by calendar years and not by number of issues, i.e. twelve months from the date of your receipt, That Reminder will turn up again.

During the next year, it is hoped to give members something more for their hard-earned money besides this magazine; please await details.

HISST HERE, PULSERS!

Here is a novel interlace circuit. I think it was in Aug. '50 "Electronics", but I may be wrong. The principle of operation is simple, but I am more so, and cannot remember it. At least it is simple though, so why not try it? By the way, good CRTs for scanning are U.S types with P2-4-7-11-and 15 screens. The 7FP7 is good; a circuit for HF correction (afterglow trouble), and one for HF expansion are below:



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2. Series Correction In this case, the compensating inductance L is placed in series with the input to the next stage (Fig. 5). This method gives slightly more gain for a given bandwidth, but component values are more critical; values are as follows:

$$\frac{C_g}{C_s} = 2. \quad L = 0.67 C_s R_1^2. \quad R_1 = \frac{3}{4\pi f_0 C_s}.$$

$C_g = 1/\mu$ Capacity of Next stage.

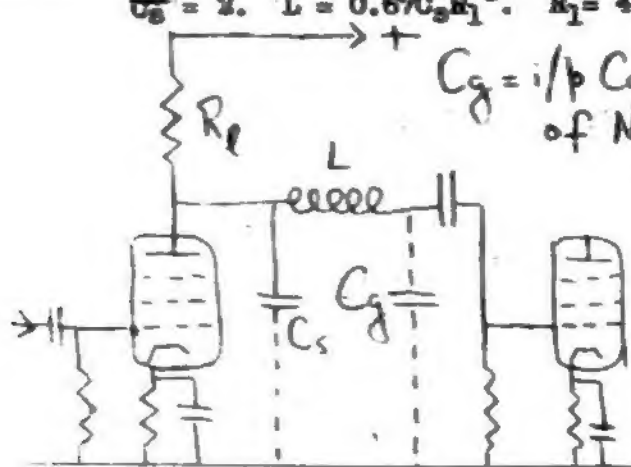


Fig. 5 Series Correction.

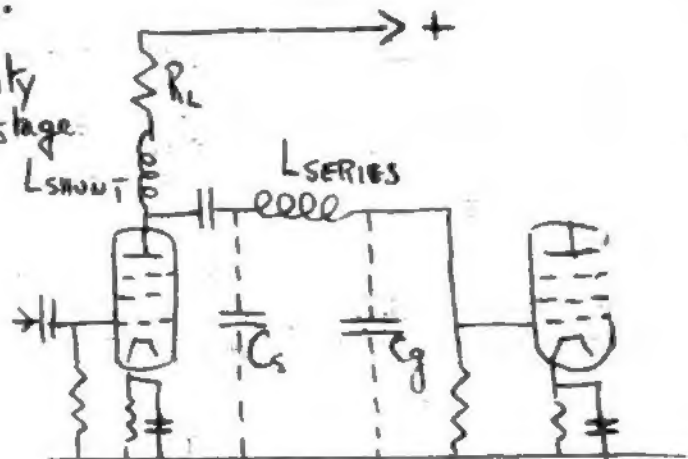


Fig 6. Shunt-Series Correction

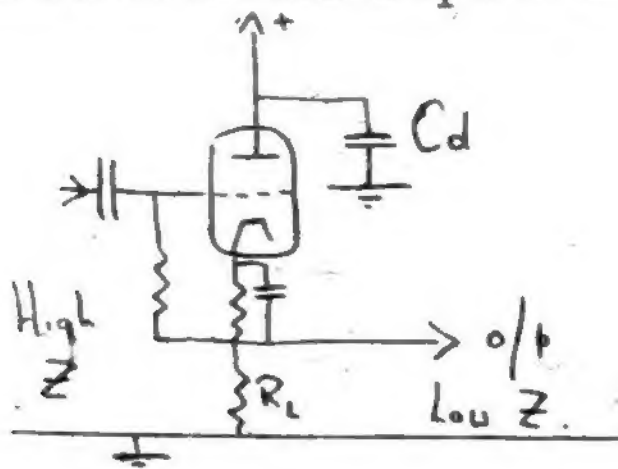
3. Shunt-Series Correction. The advantage of both previous methods are combined in this case. Its main disadvantage is again critical component values:

$$\frac{C_g}{C_s} = 2. \quad R_1 = \frac{1.8}{2\pi f_0 C_s}. \quad L(\text{shunt}) = 0.12 C_s R_1^2. \quad L(\text{series}) = 0.52 C_s R_1^2.$$

Incidentally, the gain with shunt-series correction is more than double that of an uncompensated stage.

When video signals are to be sent over a low impedance line, such as co-ax, it is desirable that the output impedance of the valve should equal the characteristic impedance of the cable.

A common method of impedance matching is via a 'Cathode Follower' stage. In this case the load resistor R_1 is in the cathode circuit, and the anode is earthed to signals by C_d .



The output impedance Z is approximately equal to $\frac{1}{G_m}$ in parallel with R_1 . More exactly

$$Z = \frac{R_1 R_a}{R_a + (1 + \mu) R_1}.$$

Taking a practical example:

6J5 tube. $R_a = 7700$ ohms, $\mu = 20$, $R_1 = 100 \Omega$.

$$\begin{aligned} \therefore Z &= \frac{100 \times 7700}{7700 + 2100} \\ &= 78.6 \text{ ohms.} \end{aligned}$$

REMEMBER.....if you have had difficulty in finding circuits, someone else will have the same trouble unless YOU let me have your ideas and results. Just a few notes and the odd circuit - I will do the rest. Pitch in, chaps, and let's all help each other.

"TVIBF CALLING CQ TV...." (With apologies to the S.W.M.)

Postage due letter from JCVO saying now licensed for UHF TV; after due celebration and black coffee next morning, remove panels disguising TV Tx as "Whistler's Mother" and trip wire from door. Glad to show GPO round shack now: as no licence have put BC221 panel on front of TV Rx. Anyway do not think much of BBC programmes, so this no disadvantage.

Decide old system of modulating 45 mc/s signal generator with VF no longer necessary. Tried multiplying up to 10.4 kMc/s. Do not recommend multiplying up to this frequency from signal generator. (Technical advice feature this article). Essential use correct technique of plenty of HF available first. At this freq very difficult, only for old hands like me (Grad. R.M.I, Girl Guides 1937-8, Wandsworth '38-40, Selochrome 1950, etc). 6V6 not efficient at 3 cms, nor 5U4 between poles of old horse-shoe magnet. Must use proper tubes for job. Screw tuning plugs of CV67 in backwards, and apply HT. Reflector does not get red, indicating circuit well loaded. Freq. unknown, but can always challenge GPO to prove TVIBF not in amateur band. Put whole arrangement at centre of dustbin lid. Will show later ingenious method of hacksaw tuning dustbin itself to resonance. Always rely on TVIBF for constructional ideas.



Result many experiments prove usual carborundum and catswhisker Xtal not efficient as mixer, so am using 866A instead. Blue glow useful as tuning indicator. Local Osc now not required, as circuit works fb as Straight set. Tuning signal appears rotated through 270°. Evidently due cross polarisation of antenna. Few hours work only to correct this.

News of further original research at TVIBF possibly of interest to other BATCs. Since electrons negative, and therefore black, am experimenting to find positive (red) electrons to get full colour TV. This obviously great advance on anything yet tried.

Complex arrangements for getting antenna really high also tried; advise members there is a law of trespass in aircraft; policemen cannot be bribed; English law very severe; English prisons cold; Health service quite ample.

Also on hand, mechanical Tuning Signal generator employing tape recorder motor and special high grade cam designed by real engineer (me, TVIBF, of course). This very useful whilst replace FM2DX in Video amp. Unfortunately, doubt if power pack will

last out much longer, as Joan Gilbert appears on cloud of smoke everytime camera unit switched on. May be due to orientation along Alexandra Palace axis. Will explain next issue.

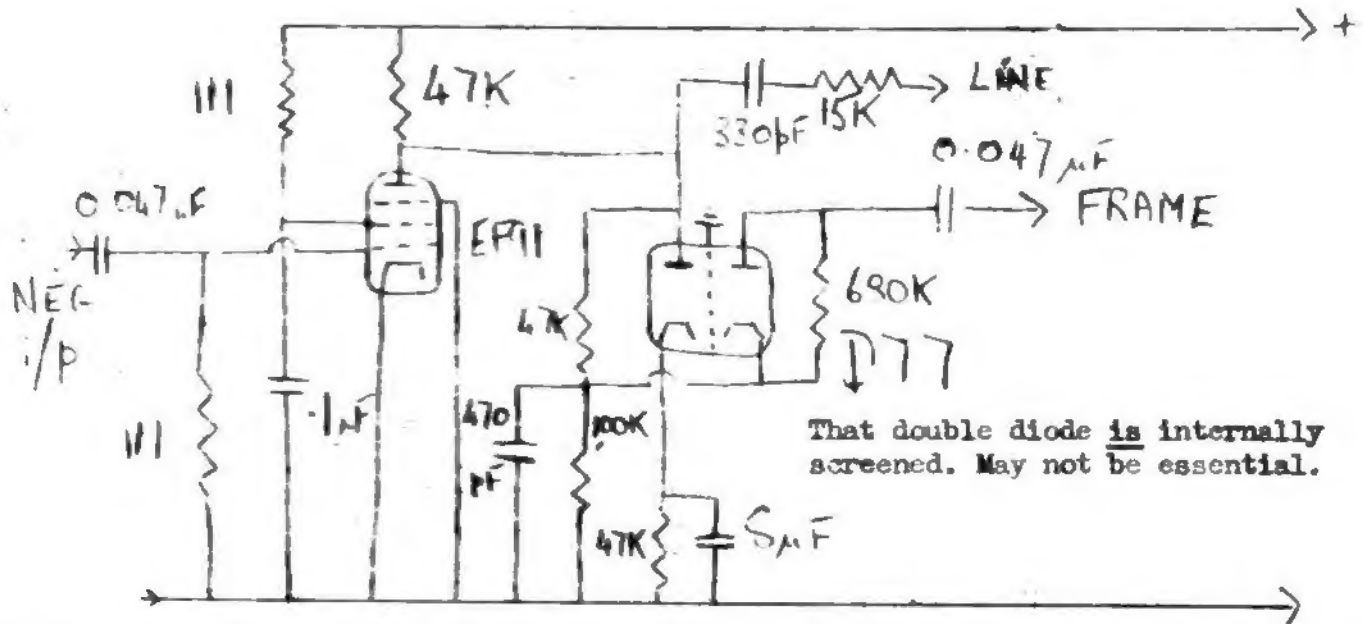
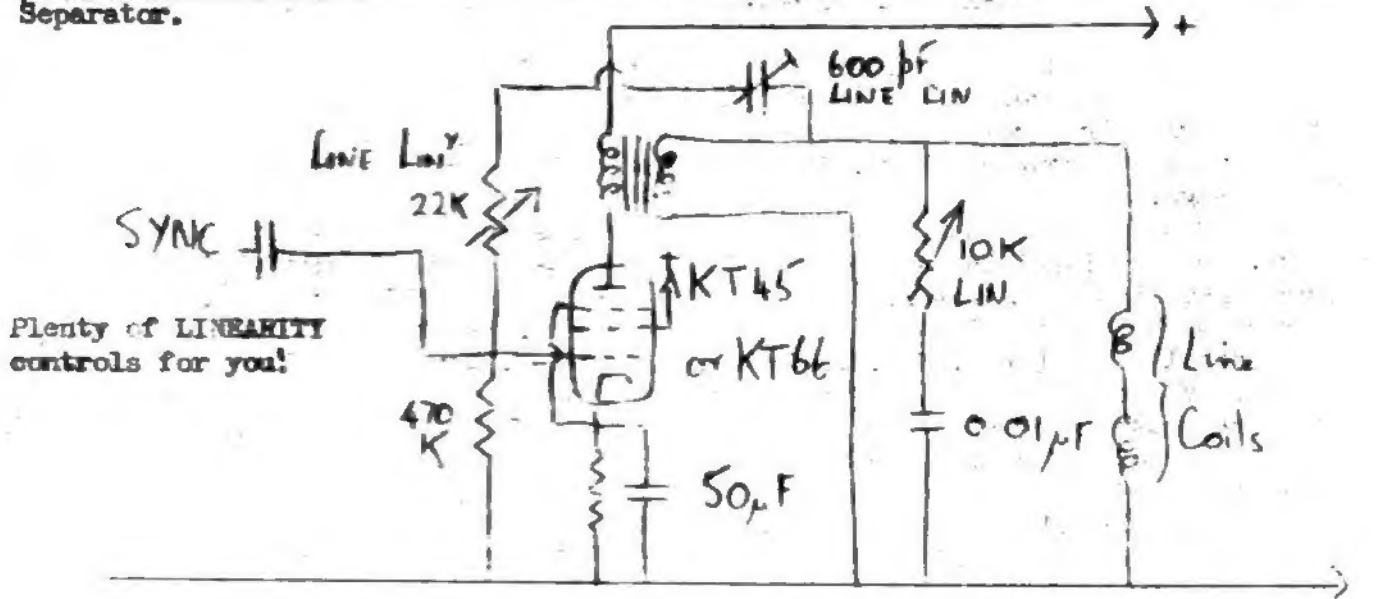
UHF TECHNIQUE REFERENCES These books are expensive, but very good; try your local library, and brush up your 13 - 6 - 3 on knowledge:

"Principles of Radar" by the M.I.T Radar School, pub. McGraw-Hill. A good general work, covering pulses too.

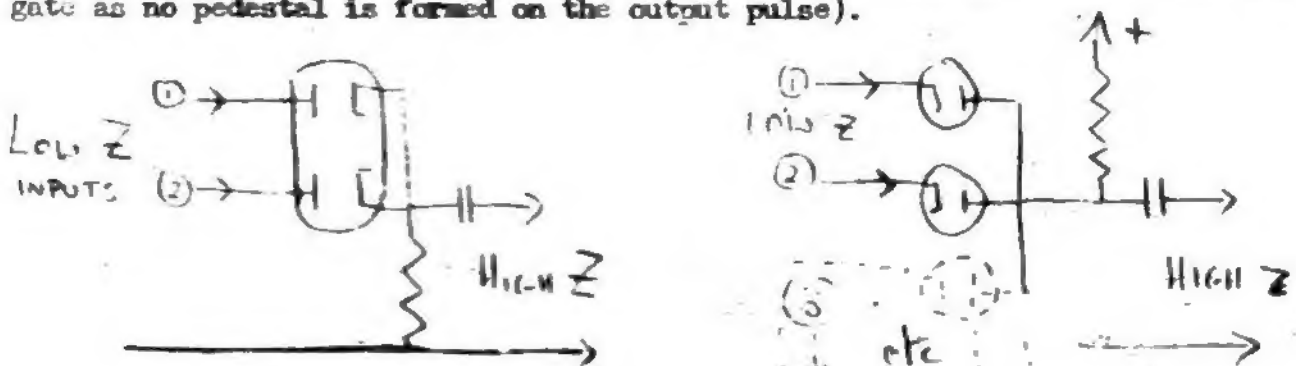
"Very High Frequency Techniques" vols 1 & 2, Radio Research Lab., pub. McGraw-Hill.

Very good on microwave antennae, txs and rxs. No pulses.

GOOD CIRCUITS DEPT. Here are a good linear Line T.B, and a very effective Syno Separator.



DO YOU KNOW the difference between the two circuits given below? The left-hand one is an additive mixer, i.e the output is the algebraic sum of the inputs; the other is a diode gating circuit; you can have as many diodes as you like in circuit, but there must be an input on ALL before any output is obtained. (Better than a pentode gate as no pedestal is formed on the output pulse).





"WHAT THE OTHER BLOKE IS DOING....."

You fellows have been really busy, it seems. Thanks for the very welcome mail too; apologies for any long delays, but I have to do some work now and then!

DAVE BISHOP (Weymouth) is very happy. He bought an 11 H.P engine for 52/6d, and is using it to drive his lathe! We should see some nice RF plumbing soon. Dave is building up a scanning tube unit and power pack for his camera. Glad to see you at the RSGB exhibition, om.

SANDY WEMYSS has now moved to Weymouth, not far from Dave. He has been making some camera

shutter timers with 931As and binary counters, but is all set with 723A/Bs for cross-town working on UHF. He also has some button base tubes to sell - see this month's shorts.

TONY GILBEY (Chelmsford) was responsible for the wonderful title cards used at the RSGB exhibition. He is on a GPO course at Stone at the moment; on the way he dropped in at the show and was inveigled into getting a few kV through him.....ouch!

RAY HILLS (Harrow) has not been demobbed yet, but is getting on with his TV Rx and 2metre equipment.

PETE PARKIN (Abinger Hammer) put in some very valiant time at the show; his was the banner right across the stand. Many thanks for your help, oc. Pete is still in the RAF, but he is hoping to cooperate with 52T in the construction of another 5527 camera unit.

HAROLD JONES (Plymouth) G52T was also at the show the whole time helping out. Harold must have been impressed, because he has announced that he is starting work on a 5527 unit right away. He has fully recovered from the fire, and is now producing some fb signal generators for TV work. Looks like these two above are going to produce something good in the near future. Let us know how you get on, oms.

IAN MACWHIRTER (Gt. Meols) G5ETI suggests we concentrate on the 3cm band; he already has some gear lined up on the band, and states that using FM, good pictures are obtainable with a deviation of only 1 mc, and he cannot resolve 3 mc deviation stuff. At that carrier freq., no trouble should be experienced in getting a swing that small! (Thanks for the offer of gear for the show, om).

JACK PORTER (Worcester) reports that he is submerged in the Christmas rush, but is still very much with us in spirit.

Amongst the "newcomers" is M.WILD, of 13 Parkside Crescent, Meanwood, Leeds 6. (Tel 55020). He has done some work on dx rx's, and is getting to work on an IPC. He has a 35mm projector available, and would like to hear from anyone who has information on movie TV work, as opposed to "telestill" cameras.

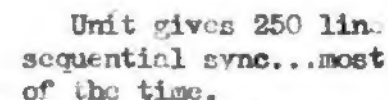
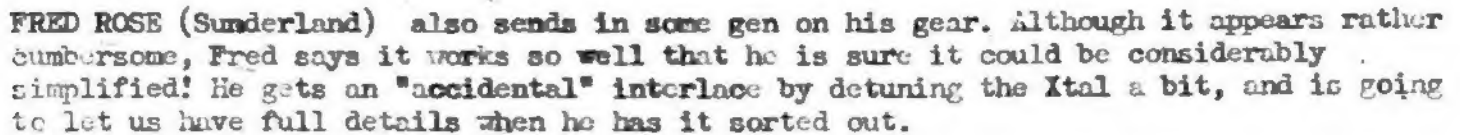
FRED PILKINGTON (Littleport) is trying out the VHF FM transmissions from Wrotham. He hopes to get his ticket in 1951, and get cracking on the VHF's and UHF's.

IVAN HOWARD (Stotfold) has given several more shows, at Luton and Letchworth, besides the RSGB "do. As a result of the latter, Ivan hopes to have the camera gear in really spiv cabinets....possibly the ones we knocked down whilst installing the cables at the show!

Ivan hopes to be on the air as soon as the licence details are released. Nice going, om.

Surprise letter from 22296223 Cpl Davis, otherwise "Jack Fields"! (L6 2Sqn 1 T.R, chaps). It seems that Quicksilver is in hibernation, so Jack, who is doing a Foreman of Signs course has grabbed hold of TONY LEAVENLAND, and the two of them are building up a closed circuit job up there at Catterick. Tony has apparently obtained a brace of camera tubes from unmentionable sources; to economise, they are feeding HT up the video and Sync leads! They have formed a TV group of six at the CERC, and work is going ahead. Good luck, oms.

GRANT DIXON (Boss on Eye) has a temporary pulser built up, and has nearly finished the camera amplifier. Grant has some 13 on gear and is looking for interested parties within range. He encloses a most useful list of tubes for UHF, and also a block diagram of his pulser. The sync is applied to a 6F52 gate valve (VR116), which is fed by a 7193 Oscillator for test purposes on 45 mc/s:



50V

Sync Pulse Generator

Blanking generator for MASKING

RF Exciter CO-807-807 852A-829B

P.I. 2 x 465As grid mod

Modulator

Monitors

Camera 5527

H+V Drive + Blanking for AMP

Pulse Shaper

Pulse Mixer

Mixer

VIDEO

INTERLACE

Blanking

6875

13760, 50, 6875